



State of Rhode Island, Department of Administration
Division of Purchases
One Capitol Hill
Providence, Rhode Island 02908
www.purchasing.ri.gov (401)574-8100

This solicitation has been awarded to the following vendor(s):

Vendor Name	PO Number
HJ ASTLE CO	3604143

ATTACHMENT "A" - BID # 7597666				
ITEM NO.	DESCRIPTION	QUANTITY	UOM	UNIT PRICE
	H J Astle Company - Negotiated Bid Pricing			
	DELIVERY AS REQUESTED			
	BLANKET REQUIREMENTS: 1/1/19 - 12/31/2021			
	FUME HOOD TESTING, REPAIR & REPLACEMENT - RHODE ISLAND COLLEGE			
	Fume hood evaluation, certification and minor repair for 30 +/- chemical fume hoods and other hood types located on the Rhode Island College campus in Providence, RI.			
	EVALUATION AND CERTIFICATION			
	Work will include (but not to be limited to) hood and transport velocity, general conditions of the system (hood, ducts, fan system, and associated equipment) and identify recommended repairs, including cost estimates. Fume hoods are to be certified for testing and repairs according to all required State and Federal Regulations and requirements. (See Chemical Fume Hood Test Specifications below).			
	All hoods tested are to be documented and a survey summary is to be provided to the Office of Facilities and Operations. The summary should include the following (in an excel spreadsheet) and be provided annually:			
	- Campus			
	- Date			
	- Building			
	- Room			
	- Sash Parameters			
	- Measured Face Velocities in FPM (feet per minute) at the following locations:			
	- Upper Left			
	- Upper Middle			
	- Upper Right			
	- Lower Left			
	- Lower Middle			
	- Lower Right			
	- Average Face Velocity			
	- Air flow rates in ml/sec (millimeters per second) and CFPM (cubic feet per minute)			
	- Class			
	- Hood Type (VAV/CAV)			
	- Hazard (Low, High)			
	- Sash Height			
	- Survey Date			
	- Instrumentation Used			
	- Fan Type (push/pull)			
	- Fan Manufacturer/Model Number			
	- Fan Age Estimate			
	- General Condition Description			
	- Flow Monitor (Calibrated, NA)			
	- Smoke Test Results			
	- Tracer Test Results (high hazard hoods only)			
	- Pass/Fail			
	Fume Hood testing and certification to be done on a per unit (hood) cost (Low Hazard or High Hazard).			
	BID A PRICE FOR THE FOLLOWING PERIOD - 1/1/2019 - 12/31/2019			
1	Initial Testing - Low Hazard Chemical Fume Hoods	280	Each	\$ 75.00
2	Initial Testing - High Hazard Chemical Fume Hoods	20	Each	\$ 350.00
3	Initial Testing - Other Safety Hoods	10	Each	\$ 95.00
	BID A PRICE FOR THE FOLLOWING PERIOD - 1/1/20 - 12/31/20			

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ITEM NO.	DESCRIPTION	QUANTITY	UOM	UNIT PRICE
4	Annual Certification - Low Hazard Chemical Fume Hoods	280	Each	\$ 75.00
5	Annual Certification - High Hazard Chemical Fume Hoods	20	Each	\$ 350.00
6	Annual Certification - Other Safety Hoods	10	Each	\$ 100.00
BID A PRICE FOR THE FOLLOWING PERIOD - 1/1/21 - 12/31/21				
7	Annual Certification - Low Hazard Chemical Fume Hoods	280	Each	\$ 75.00
8	Annual Certification - High Hazard Chemical Fume Hoods	20	Each	\$ 350.00
9	Annual Certification - Other Safety Hoods	10	Each	\$ 105.00
REPAIRS				
Repairs will include (but not limited to) balancing, adjusting fan speeds , electrical corrections and belts, cabinet repairs and other related work as required. Provide price per hour for repair work. Repair work is to be reviewed with and approved by RIC staff before work is started.				
BID A PRICE FOR THE FOLLOWING PERIOD - 1/1/2019 - 12/31/2019				
10	Hourly Rate on Site - Technician	300	Hours	\$ 95.00
11	Hourly Rate on Site - Licensed Electrician	50	Hours	\$ 125.00
12	Overtime Rate on Site - Technician	50	Hours	\$ 125.00
13	Overtime Rate on Site - Licensed Electrician	50	Hours	\$ 150.00
BID A PRICE FOR THE FOLLOWING PERIOD - 1/1/20 - 12/31/20				
14	Hourly Rate on Site - Technician	300	Hours	\$ 100.00
15	Hourly Rate on Site - Licensed Electrician	50	Hours	\$ 130.00
16	Overtime Rate on Site - Technician	50	Hours	\$ 130.00
17	Overtime Rate on Site - Licensed Electrician	50	Hours	\$ 155.00
BID A PRICE FOR THE FOLLOWING PERIOD - 1/1/21 - 12/31/21				
18	Hourly Rate on Site - Technician	300	Hours	\$ 105.00
19	Hourly Rate on Site - Licensed Electrician	50	Hours	\$ 135.00
20	Overtime Rate on Site - Technician	50	Hours	\$ 135.00
21	Overtime Rate on Site - Licensed Electrician	50	Hours	\$ 160.00
22	Provide a discount % off list price on parts/materials 1/1/19 - 12/31/21:		Percent	none
GENERAL NOTES:				
Overtime rate applies from 5:00 PM to 7:30 AM plus Saturday, Sunday and holidays				
Hourly rates are to start on the job, travel time will not be accepted. The vendor shall start and end each work session at the Maintenance Office at each facility, signing in and out (use RIC time clock as required). Contractor shall respond to requests for fume hood repairs within one business day. Materials are to be provided at a discount off list price. List Price is not acceptable. Vendor will provide copies of invoices or evidence of list price if requested to show proof of parts cost. Final invoices to be submitted to RIC within 2 weeks of the completion date.				
Chemical Fume Hood Test Specifications				
<u>Initial Testing - Low Hazard Chemical Fume Hoods</u>				
Tests to include field tests specified in AIHA/ANSI Z9.5 and ASHRAE 110, including but not limited to:				
- Face velocity profile				
- Airflow smoke patterns (local flow visualization challenge and large-volume flow visualization challenge)				
- Cross draft air flow testing				
- Verification of proper operation of continuous flow monitoring or other monitoring devices (if installed)				
- Calibration of fume hood monitors (if installed)				
- Inspection of physical condition.				
<u>Initial - High Hazard Chemical Fume Hoods</u>				
Tests to include field tests specified in AIHA/ANSI Z9.5 and ASHRAE 110, including but not limited to,				

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	- Face velocity profile			
	- Airflow smoke patterns (local flow visualization challenge and large-volume flow visualization challenge)			
	- Cross draft air flow testing			
	- Verification of proper operation of continuous flow monitoring or other monitoring devices (if installed)			
	- Calibration of fume hood monitors (if installed)			
	- Inspection of physical condition			
	- Measurement of tracer gas contaminant			
	<u>Annual Certification – Chemical Fume Hoods</u>			
	Tests to include field tests specified in AIHA/ANSI Z9.5 and ASHRAE 110, including but not limited to,			
	- Face velocity profile			
	- Airflow smoke patterns (local flow visualization challenge and large-volume flow visualization challenge)			
	- Verification of proper operation of continuous flow monitoring or other monitoring devices (if installed)			
	- Calibration of fume hood monitors (if installed)			
	- Inspection of physical condition.			
	<u>Testing Conditions</u>			
	- Perform hood test when the building HVAC system is operating in the "normal" mode. Confirm with RIC staff			
	- Supply air is functioning normally			
	- All other hoods in the room halfway open			
	- Lab doors closed			
	<u>Passing Conditions</u>			
	<u>Face Velocity</u>			
	- Variable air volume (VAV)- 90-110 fpm at full and half (14") sash height with no single measurement +/- 20% of average			
	- Low flow hoods – +/- 10% of flow rate for successful tracer test (if data is available) and no lower than 60 fpm at full and half (14") sash height			
	- Constant air volume (CAV) - 90-110 fpm at half (14")sash height with no single measurement +/- 20% of average			
	<u>Airflow Visualization</u>			
	- All smoke must be contained within and exhausted from the hood.			
	<u>Tracer Gas Containment</u>			
	As installed (AI) containment results for the average 5 minute concentration shall be less than or equal to 0.10 ppm at a tracer gas release rate of 4.0 liters per minute			
	<u>Flow Monitor</u>			
	- Reading within 10% of average flow velocity			
	<u>Equipment</u>			
	- The fume hood certifying agency (vendor) will provide all necessary tools, equipment and supplies required to perform the services listed above.			
	<u>Deliverables</u>			
	Upon successful completion of he testing and certification, the vendor must affix a "Fume Hood Inspection" tag that indicates the test date, average inflow rate, sash height, due date for next certification, test report number and service technician name.			
	Vendor shall provide Facilities and Opeations with an asset			

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	Within seven days, provide a test report identifying all tests performed, test results and any adjustments or repairs necessary. Include equipment calibration and technician certification data in the report.			
	<u>Approximate Quantities</u>			
	- Initial Testing			
	- Low Hazard Chemical Fume Hoods - 16			
	- Other Safety Hoods - 2			
	<u>Annual Certification</u>			
	- Chemical Fume Hoods - 16			
	- Other Safety Hoods - 2			
	With your bid, please provide documentation of training, certifications, etc. to demonstrate that your employees are qualified to perform this work in the State of RI.			